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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,702

07/06/2007

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5959-001

3496

24112 7590 08/05/2008
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EXAMINER

ALLEN, CAMERON J

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

08/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 5/01/2008 have been fully considered but they are not persuasive. The attorney states that independent claims 13, 14, 21 and 25 require a second circuit that is located remotely from the lamps. The Examiner interprets the second circuit being a distance away from the first as being remote. Remotely seems to refer to an indefinite distance. The attorney also argues that there is no warming of lamp 60. The Examiner notes that paragraph 78 states that circuit 314 is intended to provide maximum preheat of the ultraviolet lamp 60. Applicant's arguments with respect to claim 25-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 13, 15-22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuennen et al.

Regarding claim 12, Kuennen teaches a water treatment device comprising(0009) at least two discharge lamps for photo-chemically treating water; (Figure 5 #300 and

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302 or 0077)

a first electrical circuit disposed in the immediate vicinity of the discharge lamps and electrically connected to the discharge lamps, wherein the first electrical circuit is configured to control a warm up phase of the discharge lamps(0077 Starter circuit); and a second electrical circuit disposed remotely from the discharge lamps and electrically connected to the first electrical circuit, wherein the second electrical circuit is configured to control an operational phase of the discharge lamps. (0073) The examiner interprets the second circuit to be the circuit 152.

Regarding claim 13, Kuennen teaches the water treatment device of claim 12 wherein at least two of the two or more discharge lamps are connected in series. (0077 Lamps 300 and 302)(Figure 6)

Regarding claim 15, Kuennen teaches the water treatment device of claim 12 wherein the first electrical circuit comprises at least one capacitor electrically connected to at least one transformer. (0076 336 and 350)

Regarding claim 16, Kuennen teaches the water treatment device of claim 12 wherein the first electrical circuit is disposed immediately adjacent to the discharge lamps. (Figure 5 circuit 314)

Regarding claim 17, Kuennen teaches the water treatment device of claim 12 wherein the discharge lamps comprise ultraviolet discharge lamps.(0077)

Regarding claim 18, Kuennen teaches the water treatment device of claim 12 wherein the discharge lamps comprise mercury vapor discharge lamps. (0078)

Regarding claim 19, Kuennen teaches the water treatment device of claim 12

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wherein the first electrical circuit generates a voltage control signal, and wherein the voltage control signal controls the warm up phase of the discharge lamps. (0077)

Regarding claim 20, Kuennen teaches the water treatment device of claim 12 wherein the first electrical circuit generates a current control signal, and wherein the current control signal controls the warm up phase of the discharge lamps. (0078)

Regarding claim 21, Kuennen teaches a method of photo-chemically treating water with two or more discharge lamps, the method comprising:
controlling a warm up phase associated with the two or more discharge lamps with a first (0077)
electrical circuit disposed in the immediate vicinity of the discharge lamps; and (Figure 6 #314)controlling an operational phase associated with the two or more discharge lamps with a second electrical circuit disposed remotely from the discharge lamps. (0078)

Regarding claim 22, Kuennen teaches the method of claim 21 wherein the two or more discharge lamps are connected in series. (Figure 6)

Regarding claim 24, Kuennen teaches the method of claim 21 wherein the two or more discharge lamps comprise two or more ultraviolet discharge lamps. (0073)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 14, 23, and 25-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuennen et al US 2003/0015478 A1

Regarding claim 14, Kuennen teaches the water treatment device of claim 12 but does not teach wherein at least two of the two or more discharge lamps are connected in parallel. It would have been obvious to one of ordinary skill in the art at the time of the invention to place the discharge lamps are connected in parallel since it is within the skill of an ordinary person in the art to use known configurations to wire the lamps.

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Known examples of discharge lamps in parallel can be seen in US 6,593,704 column 5 line 13-19

Regarding claim 23, Kuennen teaches the method of claim 21 but does not teach wherein the two or more discharge lamps are connected in parallel. It would have been obvious to one of ordinary skill in the art at the time of the invention to place the discharge lamps are connected in parallel since it is within the skill of an ordinary person in the art to use known configurations to wire the lamps. Known examples of discharge lamps in parallel can be seen in US 6,593,704 column 5 line 13-19.

Regarding claim 25, Kuennen teaches a water treatment device comprising: two or more ultraviolet discharge lamps (0077); a first electrical circuit disposed a first distance from the ultraviolet discharge lamps, wherein the first electrical circuit is configured to control a warm up phase of the discharge lamps(0077); and a second electrical circuit disposed a second distance from the ultraviolet discharge lamps, wherein the second distance is greater than the first distance, and wherein the second electrical circuit is configured to control an operational phase of the discharge lamps; but does not disclose wherein the first electrical circuit is displaced less that 0.5 meters from the two or more ultraviolet discharge lamps and wherein the second electrical circuit is disposed at least 2.0 meters from the UV discharge lamps. (0073) (0076 connection 182). It would have been obvious to one of ordinary skill in the art to locate the first electrical circuit is disposed less that 0.5 meters from the two or more ultraviolet discharge lamps and wherein the second electrical circuit is disposed at least 2.0 meters from the UV discharge lamps since it has been held that rearranging parts of

an invention involves only routine skill in the art.

Regarding claim 26, Kuennen teaches the water treatment device of claim 25 wherein the first distance comprises a relatively small distance, and wherein the second distance comprises a relatively large distance. (0073)(0076 and 0077)

Regarding claim 27, Kuennen teaches the water treatment device of claim 26 but does not teach wherein the first distance is generally less than 0.5 meters and wherein the second distance is generally greater than 2 meters. It would have been obvious to one of ordinary skill in the art to make the first distance generally less than 0.5 meters, and wherein the second distance is generally greater than 2 meters, since it has been held that location of parts of an invention is a matter of obvious design choice and it involves only routine skill in the art.

Regarding claim 28, Kuennen teaches the water treatment device of claim 25 but does not teach wherein the first and second electrical circuits are separated by at least 1.5 meters. It would have been obvious to one of ordinary skill in the art to make the first distance generally less than 0.5 meters, and wherein the second distance is generally greater than 2 meters, since it has been held that location of parts of an invention is a matter of obvious design choice and it involves only routine skill in the art.

Regarding claim 29, Kuennen teaches the water treatment device of claim 25 wherein at least two of the two or more ultraviolet discharge lamps are connected in series. (Figure 6)

Regarding claim 30, Kuennen teaches the water treatment device of claim 25 but does not teach wherein at least two of the two or more ultraviolet discharge lamps are

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connected in parallel. It would have been obvious to one of ordinary skill in the art at the time of the invention to place the discharge lamps are connected in parallel since it is within the skill of an ordinary person in the art to use known configurations to wire the lamps. Known examples of discharge lamps in parallel can be seen in US 6,593,704 column 5 line 13-19.

Regarding 31, Kuennen teaches the water treatment device of claim 13 wherein the first electrical circuit is disposed less than 0.5 meters from at least one of the discharged lamps and includes a first capacitor in series with a transformer; wherein the second electrical circuit is disposed at least two meters from both discharge lamps and includes a power supply, a second capacitor in series with a first switch and a third capacitor in series with a second switch, and an inductor in series with the second and third capacitors and the first and second switches.

Regarding 32, Kuennen teaches the water treatment device of claim 31 but does not disclose including only two wires interconnecting the first electrical circuit with the second electrical circuit. It is within the ordinary skill of one in the art at the time of the invention to use known circuits in know ways to provide expected results, and within the ordinary skill of one in the art to use a sufficient number of wires to make the device operate.

Regarding 33, Kuennen teaches the water treatment device of claim 14 but does not disclose wherein the first electrical circuit is disposed less than 0.5 meters from one of the discharge lamps and include first and second capacitors; and wherein the second

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electrical circuit is disposed at least 2.0 meters from the discharge lamps and includes a power supply and a third capacitor in series with a first switch and a fourth capacitor in series with a second switch, and two parallel inductors disposed in series with the third and fourth capacitors and first and second switches. It would have been obvious to one of ordinary skill in the art to locate the first electrical circuit is disposed less than 0.5 meters from the two or more ultraviolet discharge lamps and wherein the second electrical circuit is disposed at least 2.0 meters from the UV discharge lamps since it has been held that rearranging parts of an invention involves only routine skill in the art. It is also within ordinary skill in the art at the time of the invention to use a third and fourth circuit since it has been held that duplication of parts involves only routine skill in the art.

Regarding 34, Kuennen teaches the water treatment device of claim 33 but does not disclose including only three wires interconnecting the first and second electrical circuits. It is within the ordinary skill of one in the art at the time of the invention to use known circuits in known ways to provide expected results, and within the ordinary skill of one in the art to use a sufficient number of wires to make the device operate.

Regarding 35, Kuennen teaches the method of claim 21 but does not disclose including placing the first electrical circuit within 0.5 meters of the discharge lamps, and placing the second electrical circuit at least 2.0 meters from the discharge lamps. It would have been obvious to one of ordinary skill in the art to locate the first electrical circuit is disposed less than 0.5 meters from the two or more ultraviolet discharge lamps and wherein the second electrical circuit is disposed at least 2.0 meters from the UV

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discharge lamps since it has been held that rearranging parts of an invention involves only routine skill in the art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron J. Allen whose telephone number is 571-270-3164. The examiner can normally be reached on M-Th 9-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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CJA

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797